LUP AMENDMENT/MAINTENANCE SHEET Office: Moab Field Office Plan Name: Moab ROD/Approved RMP Maintenance Change No. 43 **Program: Minerals and Special Status Species** LOCATION OF CHANGE Decision Number: Appendix A: Stipulations and Environmental Best Practices Applicable to Oil and Gas Leasing and Other Surface-Disturbing Activities- Table A4 Page Numbers: A21-A34 Column Number: n/a Line Number: n/a **CHANGE Delete:** lease notices for all endangered animals and plants; Mexican spotted owl (A21-A22), Southwestern willow flycatcher (A25-A27), yellow-billed cuckoo (A27-A28), Endangered Colorado River Fish (A28-A29), California condor (A29-A31) and Jones cycladenia (A31- A34). Insert: 1) Add updated leases notices from the 2016 MLP for Mexican spotted owl, Southwestern willow flycatcher, yellow-billed cuckoo, California condor, Jones cycladenia, endangered Colorado River fish. 2) Add new lease notices from the 2016 MLP for Navajo sedge. 3) Add Measures to Minimize Effects of Surface Water Pumping to Endangered Colorado River Fish. 4) Add lease notices for two sensitive plant species currently under USFWS review: Cisco milkvetch (Astragalus sabulosus) and Isley milkvetch (Astragalus isleyi). All updated and new lease notices are attached. REASON(s) The 2016 MLP developed new and updated measures, in coordination with the U.S. Fish and Wildlife Services to protect federally listed species. These updated leases notices are applicable throughout each species range and therefore need to be incorporated throughout the Moab FO, as needed. SIGNATURES Program Lead Date: Environmental Coordinator Date: / Manager

Signature:

Copy sent to USO Planning: Date: 0/21

LEASING NOTICES (Moab Master Leasing Plan/ROD 7/22/2016)

The following species specific leasing notices have been developed in coordination with the Service. These lease notices along with all other lease notices and stipulations are also included in Appendix A of the Moab MLP and would apply to both oil and gas leasing and potash leasing. The stipulations also apply to geophysical exploration.

California condor

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for the California condor. Avoidance or use restrictions may be placed on portions on areas known or suspected to be used by condors. Application of appropriate measures would depend on whether the action is temporary or permanent, and whether it occurs within or outside potential habitat. A temporary action is completed prior to the following important season of use, leaving for habitat functionality. A permanent action continues for more than one season of habitat use, and/or causes a loss of condor habitat function or displaces condors through continued disturbance (i.e., creation of a permanent structure requiring repetitious maintenance or emits disruptive levels of noise).

Current avoidance and minimization measures include the following:

- 1. The Peregrine Fund will be contacted early and throughout project design and implementation to determine and monitor the locations and status of California condors in or near the project area.
- 2. Surveys would be required prior to operations in suitable habitat, unless species occupancy and distribution information is complete and available. All Surveys must be conducted by qualified individual(s) approved by the BLM and must be conducted according to protocols consulted on with FWS.
- 3. All workers will be informed about potential condor presence.
- 4. If condors are present within the project area the Peregrine Fund will be contacted. If there is any potential that the project will affect condors, the USFWS will be contacted immediately;
- 5. The project area will be kept clean (e.g., trash disposed of, tools and materials picked up) in order to minimize the possibility of condors accessing inappropriate materials;
- 6. To prevent water contamination and potential condor poisoning, a hazardous material (including vehicle fluids) leakage and spill plan will be developed and implemented. The plan will include provisions for immediate clean-up of any hazardous substance, and will outline how each hazardous substance will be treated in case of leakage or spill. The plan will be reviewed by the district biologist to ensure condors are adequately addressed.
- 7. If surveys result in positive identification of condor use, all lease activities would require monitoring throughout the duration of the project to ensure desired results of

suitability for both nesting and foraging using accepted habitat models in conjunction with field reviews. Apply the conservation measures below if project activities occur within 0.5 mile of suitable owl habitat.

Determine potential effects of actions to owls and their habitat. Document type of activity, acreage and location of direct habitat impacts, type and extent of indirect impacts relative to location of suitable owl habitat.

Document if action is temporary or permanent. Activities may require monitoring throughout the duration of the project. To ensure desired results are being achieved, minimization measures would be evaluated, and, if necessary, Section 7 consultation reinitiated. Any activity that includes water production should be managed to ensure maintenance of enhancement of riparian habitat. Where technically and economically feasible, use directional drilling or multiple wells from the same pad to reduce surface disturbance and eliminate drilling in canyon habitat suitable for MSO nesting.

For all temporary actions that may impact owls or suitable habitat:

1. If the action occurs entirely outside of the owl breeding season from March 1 through August 31, and leaves no permanent structure or permanent habitat disturbance, the action can proceed without an occupancy survey.

2. If the action would occur during a breeding season, a survey for owls is required prior to commencing the activity. If owls are found, the activity should be delayed until outside of the breeding season.

Rehabilitate access routes created by the project through, such means as raking out scars, re-vegetation, gating access points, etc.

For all permanent actions that may impact owls or suitable habitat:

- 1. Survey two consecutive years for owls, according to accepted protocol prior to commencing activities.
- 2. If owls are found, no disturbing actions would occur within 0.5 miles of an identified site. If nest site is unknown, no activity would occur within the designated current and historic Protected Activity Center (PAC).
- 3. Avoid permanent structures within 0.5 mile of suitable habitat unless surveyed and not occupied.
- 4. Reduce noise emissions (e.g., use hospital-grade mufflers) to 45 dBA at 0.5 mile from suitable habitat, including canyon rims. Placement of permanent noise generating facilities should be contingent upon a noise analysis to ensure noise does not encroach upon a 0.5-mile buffer for suitable habitat, including canyon rims.
- 5. Limit disturbances to and within suitable habitat by staying on designated and/or approved routes.
- 6. Limit new access routes created by the project.

The lessee/operator is given notice that the lands in or adjacent to this parcel contain potentially suitable habitat that falls within the range for western yellow-billed cuckoo, a federally listed species. Avoidance or use restrictions may be placed on portions of the lease. Application of appropriate measures will depend whether the action is temporary or permanent, and whether it occurs within or outside the breeding and nesting season. A temporary action is completed prior to the following breeding season, leaving no permanent structures and resulting in no permanent habitat loss. A permanent action could continue for more than one breeding season and/or cause a loss of habitat or (12,155 acres) displace western yellow-billed cuckoos through disturbances (e.g., generation of noise between June 15 and August 31). The following avoidance and minimization measures have been designed to ensure activities carried out on the lease are in compliance with the Endangered Species Act. Integration of and adherence to these measures will facilitate review and analysis of any submitted permits under the authority of this lease. Following these measures could reduce the scope of Endangered Species Act, Section 7 consultation at the permit stage. Avoidance and minimization measures include the following:

- 1. Habitat suitability within the parcel and/or within a 0.5-mile buffer of the parcel will be identified prior to lease development to identify potential survey needs. Habitat suitability should be determined in accordance with Guidelines for the identification of suitable habitat for WYBCU in Utah (Utah Field Office, 2015).
- 2. Protocol Breeding Season Surveys will be required in suitable habitats prior to operations unless species occupancy and distribution information is complete and available. All Surveys must be conducted by permitted individual(s), and be conducted according to protocol.

For all temporary actions that may impact cuckoo or suitable habitat:

If action occurs entirely outside of the cuckoo breeding season (June 1 – Aug 31), and leaves no structure or habitat disturbance, action can proceed without a presence/absence survey.

If action is proposed between June 1 and August 31, presence/absence surveys for cuckoo will be conducted prior to commencing activity. If cuckoo are detected, activity should be delayed until September 1.

Eliminate access routes created by the project through such means as raking out scars, revegetation, gating access points, etc.

For all permanent actions that may impact cuckoo or suitable habitat:

Protocol level surveys by permitted individuals will be conducted prior to commencing activities.

a. If cuckoos are detected, no activity will occur within 0.25 mile of occupied habitat.

- 5. Conduct watershed analysis for leases in designated critical habitat and overlapping major tributaries in order to determine toxicity risk from permanent facilities.
- 6. Implement the Utah Oil and Gas Pipeline Crossing Guidance. In areas adjacent to 100-year floodplains, particularly in systems prone to flash floods, analyze the risk for flash floods to impact facilities, and use closed loop drilling, and pipeline burial or suspension according to the Utah Oil and Gas Pipeline Crossing Guidance to minimize the potential for equipment damage and resulting leaks or spills.
- 7. Water depletions from any portions of the Upper Colorado River drainage basin are considered to diversely affected and adversely modify the critical habitat of the endangered fish species (bonytail, Colorado pikeminnow, humpback chub, and razorback sucker). Section 7 consultation would be completed with the U.S. Fish and Wildlife Service (USFWS) prior to any such water depletions.

Additional measures to avoid or minimize effects to the species may be developed and implemented in consultation with the USFWS between the lease sale stage and lease development stage to ensure continued compliance with the ESA.

U.S. Fish and Wildlife Service (Service) Measures to Minimize Effects of Surface Water Pumping to Endangered Colorado River Fish

<u>Issue:</u> Endangered larval fish are very small (<0.5 inches total length) and incapable of directed swimming from the time of hatching through the first 2-4 wks of their life. Depending on the water year, larval fish may be present in the Green, Colorado, Gunnison, and Yampa Rivers from as early as April 1 to as late as August 31 (earlier in dry years; later in wet years). Young of the year endangered fish are the most susceptible to entrainment.

Goal: Minimize entrainment of federally listed species into pumps.

Measures:

- 1. The best method to avoid entrainment is to pump from an off-channel location one that does not connect to the river during high spring flows. An infiltration gallery constructed in a Service approved location is best.
- 2. If the pump head is located in the river channel the following stipulations apply:
 - a. do not situate the pump in a low-flow or no-flow area as these habitats tend to concentrate larval fishes.
 - b. limit the amount of pumping, to the greatest extent possible, during that period of the year when larval fish may be present (see above).
 - c. limit the amount of pumping, to the greatest extent possible, during the midnight hours (10pm to 2 am), as larval drift studies indicate that this is a period of greatest daily activity. Dusk and the afternoon are the preferred pumping times, as larval drift abundance is lowest during this time.
- 3. Screen all pump intakes with 3/32" mesh material.
- 4. Approach velocities for intake structures should follow the National Marine Fisheries Service's document "Fish Screening Criteria for Anadromous Salmonids". For projects

- c. Will occur within 300 feet from the edge of the proposed right-of-way (ROW) and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation.
- d. Will include, but not be limited to, plant species lists and habitat characteristics.
 - e. Will be valid until April 15 of the following year.
- f. Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied habitat for that site. This evaluation will occur in coordination with the BLM and Service to ensure that the appropriate buffer is applied to protect both active and dormant Jones Cycladenia plants in occupied habitat.
- g. Electronic copies of clearance survey reports (including appendices) and GIS shape files will be sent no later than December 31st to each of the following:
 - -Utah Natural Heritage Program (with copies of NHP field survey forms)
 - -Applicable/affected land owners and/or management agencies; and
- -U.S. Fish and Wildlife Service, Utah Field Office (mailing address:2369 West Orton Circle, Suite 50, West Valley City, Utah, Utah 84119)

Design project infrastructure to minimize impacts within suitable habitat:

- a. Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (voidance areas) and incorporate 300 foot buffers, in general; however, site-specific distances will need to be approved by USFWS and BLM when disturbance will occur upslope of habitat.
- b. Reduce well pad size to the minimum needed without compromising safety.
- c. Where technically and economically feasible, use directional or horizontal drilling or multiple wells from the same pad.
 - d. Limit new access routes created by the project.
 - e. Roads and utilities should share common ROWs where possible.
- f. Reduce the width of ROWs and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat.
 - g. Place signing to limit off-road travel in sensitive areas.
 - h. Stay on designated routes and other cleared/approved areas.
- i. All disturbed areas will be re-vegetated with species native to the region, or seed mixtures approved by the action agency and USFWS.
- j. Dust abatement and reduced speed limits will be applied during flowering dates within 300 feet of suitable and occupied habitat for listed plant species, including unoccupied suitable habitat.

Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and minimize indirect impacts to populations and to individual plants:

Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the USFWS to ensure continued compliance with the ESA.

Navajo Sedge Lease Notice (9/30/2019)

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Navajo sedge (*Carex specuicola*).

In order to minimize effects to the federally threatened Navajo sedge, the Bureau of Land Management (BLM), in coordination with the U.S. Fish and Wildlife Service (Service) has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during mineral leasing and development (including but not limited to drilling, production, and maintenance operations) are in compliance with the Endangered Species Act.

For the purposes of this document, the following terms are so defined:

<u>Potential habitat</u> is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. <u>Suitable habitat</u> is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence, determined by field inspection and/or surveys.

Habitat descriptions can be found in Federal Register Notice and species recovery plan links at http://www.fws.gov/endangered/species/. Occupied habitat is defined as areas currently or historically known to support Navajo sedge; synonymous with "known habitat."

The following avoidance and minimization measures should be included in the plan of development:

- 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Navajo sedge habitat is present.
- 2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"). In such cases, a) 300 foot buffers will be maintained between surface disturbance and avoidance areas, or b) 1.25 mile buffers will be maintained between avoidance areas and subsurface disturbance activities (including drilling), water depletions, or other actions that may result in changes to the local hydrology and avoidance areas. However, site specific distances will need to be approved by Service and BLM when surface disturbance will occur upslope of habitat. Where conditions allow, surveys:
- a) Must be conducted by a qualified botanist(s), and according to BLM and FWS accepted survey protocols (USFWS 2011); outside contractors must be considered a Carex spp. expert and approved by BLM and FWS;

- i) Where technically and economically feasible, use directional drilling, horizontal drilling, or multiple wells from the same pad. Ensure that directional drilling does not intercept or degrade alluvial aquifers;
 - j) Limit new access routes created by the project;
 - k) Roads and utilities should share common right-of ways where possible;
- l) Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat;
 - m) Place signing to limit off-road travel in sensitive areas;
- n) Existing roads will be graveled within 300 feet of suitable habitat; the operator is encouraged to apply water for dust abatement to such areas and within 300 feet of suitable habitat from June 1st to September 30th (flowering and fruit set period); dust abatement applications will be comprised of water only;
- o) Place signing to reduce vehicle speed to 15 mph or lower on dirt or gravel roads within 300 feet of suitable habitat and 25 mph or lower in the project area.
 - p) Stay on designated routes and other cleared/approved areas;
- q) Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim disturbed areas following completion of activities (drilling or mining) to the smallest area possible. All disturbed areas will be re-vegetated with native species comprised of species indigenous to the area.
 - r) Post construction monitoring for invasive species will be required.
- 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:
- a) For surface disturbing activities: Infrastructure and activities will avoid all occupied habitat and incorporate 300 foot buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat;
- b) For subsurface activities (including drilling), water depletions, or hydrologic alteration activities: Infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 1.25 mile buffers; however, site specific buffer distances will need to be approved by Service and BLM when disturbance will occur upslope of habitat;
- c) To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged;
- d) No surface (or subsurface) occupancy will be allowed in the down dip(s) of the strata associated with the Navajo sedge water source. Surface disturbance will not occur within a 300 foot buffer from the outer edge of the down dip(s);
- e) Ensure that water extraction or disposal practices do not result in change of hydrologic regime;
- f) Ensure above ground contaminants and byproducts are contained and properly managed;
 - g) Ensure any casings near or in aquifers are properly sealed and managed;
- h) Fracking will not be allowed within 1.25 miles from the edge of occupied habitat and associated water sources, unless studies are completed that positively identify the aquifer as entirely unassociated with the Navajo sedge population;

pipeline right of ways; (2) 300 ft of the edge of the road right of ways; (3) 300 ft from the edge of the development areas; and (4) 1.25 miles of subsurface activities (including drilling), water depletions or other hydrologic alteration activities shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.

6. Reinitiation of section 7 consultation with the Service will be sought immediately if any loss of plants or occupied habitat for the Navajo sedge is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in consultation with the Service to ensure continued compliance with the ESA.

Literature Cited:

U.S. Fish and Wildlife Service (USFWS). 2011. Utah Field Office Guidelines for Conducting and Reporting Botanical Inventories and Monitoring of Federally Listed, Proposed, and Candidate Plants. Utah Ecological Services Field Office, West Valley City, Utah. August 2011. Available at:

http://www.fws.gov/utahfieldoffice/SurveyorInfo.html

Cisco Milkvetch

The lessee/operator is given notice that the lands located in this parcel contain potential habitat for Cisco milkvetch (*Astragalus sabulosus*). The U.S. Fish and Wildlife Service (Service) was petitioned to list Cisco milkvetch under the Endangered Species Act (ESA) and the species' status is currently under review. Cisco milkvetch is currently a Bureau of Land Management (BLM) sensitive plant species.

In order to minimize effects to the Cisco milkvetch, the BLM, in coordination with the Service has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) avoids or minimizes impacts to the species.

For the purposes of this document, the following terms are so defined: *Potential habitat* is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. *Suitable habitat* is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Cisco milkvetch; habitat descriptions can be found in NatureServe links at http://explorer.natureserve.org/. *Occupied habitat* is defined as areas currently or historically known to support Cisco milkvetch; synonymous with "known habitat."

address: 2369 West Orton Circle, Suite 50, West Valley City, Utah 84119).

- 3. Design project infrastructure to minimize impacts within suitable habitat:
 - a) Where standard surveys are technically infeasible, infrastructure and activities will avoid all suitable habitat (avoidance areas) and incorporate 300 foot buffers;
 - b) Reduce well pad size to the minimum needed, without compromising safety;
 - c) Where technically and economically feasible, use directional drilling or multiple wells from the same pad;
 - d) Limit new access routes created by the project;
 - e) Roads and utilities should share common right-of ways where possible;
 - f) Reduce the width of right-of-ways and minimize the depth of excavation needed for the road bed; where feasible, use the natural ground surface for the road within habitat;
 - g) Place signing to limit off-road travel in sensitive areas;
 - h) Stay on designated routes and other cleared/approved areas;
 - i) All disturbed areas will be revegetated with species native to the region, or seed mixtures approved by the action agency.
- 4. Where there is occupied habitat, project infrastructure will be designed to avoid direct disturbance and indirect impacts to populations and to individual plants:
 - a) Follow the above recommendations (#3, above) for project design within suitable habitats;
 - b) To avoid water flow and/or sedimentation into occupied habitat and avoidance areas, silt fences, hay bales, and similar structures or practices will be incorporated into the project design; appropriate placement of fill is encouraged;
 - c) Construction of roads will occur such that the edge of the right of way is at least 300 feet from: (1) any plant; (2) the outer boundary of occupied habitat; and (3) avoidance areas;
 - d) Existing roads will be graveled within 300 feet of occupied habitat; the operator is encouraged to apply water for dust abatement to such areas from April 15th to May 31st (flowering period); dust abatement applications will be comprised of water only;
 - e) The edge of the well pad should be located at least 300 feet away from plants and avoidance areas, in general;
 - f) Surface pipelines will be laid such that a 300 foot buffer exists between the edge of the right of way and plants and 300 feet between the edge of right of way and avoidance areas; use stabilizing and anchoring techniques when the pipeline crosses

(Service) was petitioned to list Isley milkvetch under the Endangered Species Act (ESA) and the species' status is currently under review. Isley milkvetch is currently a Bureau of Land Management (BLM) sensitive plant species.

In order to minimize effects to the Isley milkvetch, the BLM, in coordination with the Service has developed the following avoidance and minimization measures. Implementation of these measures will help ensure the activities carried out during oil and gas development (including but not limited to drilling, production, and maintenance operations) avoids or minimizes impacts to the species.

For the purposes of this document, the following terms are so defined: Potential habitat is defined as areas which satisfy the broad criteria of the species habitat description; usually determined by preliminary, in-house assessment. Suitable habitat is defined as areas which contain or exhibit the specific components or constituents necessary for plant persistence; determined by field inspection and/or surveys; may or may not contain Isley milkvetch; habitat descriptions can be found in the book, A Utah Flora by Stanley Welsh et al. 2008. Occupied habitat is defined as areas currently or historically known to support Isley milkvetch; synonymous with "known habitat."

The following avoidance and minimization measures should be included in the plan of development:

- 1. Pre-project habitat assessments will be completed across 100% of the project disturbance area within potential habitat prior to any ground disturbing activities to determine if suitable Isley milkvetch habitat is present.
- 2. Species surveys will be conducted within suitable habitat to determine occupancy. Where standard surveys are technically infeasible and otherwise hazardous due to topography, slope, etc., suitable habitat will be assessed and mapped for avoidance (hereafter, "avoidance areas"); in such cases, 300 foot buffers will be maintained between surface disturbance and avoidance areas. Where conditions allow, surveys:
- a) Will be conducted by qualified individual(s) and according to BLM and Service accepted survey protocols (USFWS 2011);
- b) Will be conducted in suitable and occupied habitat for all areas proposed for surface disturbance prior to initiation of project activities and within the same growing season, at a time when the plant can be detected (usually March 1st to April 30th; however, surveyors should verify that the plant is flowering by contacting a BLM or Service botanist or demonstrating that the nearest known population is in flower);
- c) Will occur within 300 feet from the edge of the proposed right-of-way and/or project disturbance for surface pipelines, roads, well pads, and other facilities requiring removal of vegetation;
- d) Will include, but not be limited to, plant species lists and habitat characteristics, and;
- e) Will be valid until March 1st of the following year.
- f) Clearance surveys in occupied habitat will be combined with historic plant location data for that particular site to delineate the outer boundary of occupied habitat. The 300 foot avoidance buffer will then be applied to the outer boundary of occupied

- h) Before and during construction, areas for avoidance should be visually identifiable in the field, e.g., flagging, temporary fencing, rebar, etc.;
- i) A qualified botanist will be on site during construction to monitor the surface disturbance activity and assist with implementation of applicable conservation measures (USFWS 2011);
- j) Place produced oil, water, or condensate tanks in centralized locations, away from occupied habitat; and
- k) Minimize the disturbed area of producing well locations through interim and final reclamation. Reclaim well pads following drilling to the smallest area possible.
- 5. For projects that cannot implement the measures or avoidance buffers identified in #4, above, site specific conservation measures will be developed in coordination with the Service. Occupied Isley milkvetch habitats within: (1) 300 ft of the edge of the surface pipeline right of ways; (2) 300 ft of the edge of the road right of ways; and (3) 300 ft from the edge of the well pads shall be monitored for a period of three years after ground disturbing activities. Monitoring will include annual plant surveys to determine plant and habitat impacts relative to project facilities. Annual reports shall be provided to the BLM and the Service. To ensure desired results are being achieved, minimization measures will be evaluated and may be changed after a thorough review of the monitoring results and annual reports during annual meetings between the BLM and the Service.
- 6. Coordination with the Service will be sought immediately if any loss of plants or occupied habitat for the Isley milkvetch is anticipated as a result of project activities. Additional site-specific measures may also be employed to avoid or minimize effects to the species. These additional measures will be developed and implemented in coordination with the BLM and the Service.

 Literature Cited:

U.S. Fish and Wildlife Service (USFWS). 2011. Utah Field Office Guidelines for Conducting and Reporting Botanical Inventories and Monitoring of Federally Listed, Proposed, and Candidate Plants. Utah Ecological Services Field Office, West Valley City, Utah. August 2011. Available at:

http://www.fws.gov/utahfieldoffice/SurveyorInfo.html

Welsh, S., N.D. Atwood, S. Goodrich, L.C. Higgins. 2008. A Utah Flora, 4th Edition, revised. Brigham Young University, Provo, Utah. 1019 pp.